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BASE REALIGNMENT AND CLOSURE MINI RECORDS OF DECISION AND FACT SHEETS FOR STUDY AREAS 17, 18, 23, 35, 36, 37, 40 AND 42 WITH FINAL DECISION FOR STUDY AREA 36 ATTACHED NTC ORLANDO FL
5/13/1999
HARDING LAWSON ASSOCIATES

File 1457-200-450 SBM

Harding Lawson Associates

May 13, 1999
Commanding Officer
SOUTHNAVFACENGCOM
2155 Eagle Drive
North Charleston, SC 29419-9010

ATTN: Ms. Barbara Nwokike, Code 187300

Subject: **BRAC mini-RODs and Fact Sheets**
Study Areas 17, 18, 23, 35, 36, 37, 40 and 42
NTC, Orlando
Contract: N62467-89-D-0317

Dear Barbara:

Enclosed for your review are the (draft) mini-RODs (Decision and Response to Comments) for Study Areas 17, 18, 23, 35, 36, 37, 40 and 42. Also enclosed is the (draft) fact sheet for Study Area 36. The mini-ROD and fact sheet for Study Area 36 should be considered very preliminary, as the site screening report is still being reviewed by the OPT, and the conclusions and recommendations may change somewhat based on comments HLA receives from the Team. Fact sheets have previously been issued for all of the other study areas listed above.

Should you have any questions or need additional information, please call me at (904) 772-7688.

Very Truly Yours,

Harding Lawson Associates

Richard P. Allen
Project Technical Lead

Attachments

cc: Wayne Hansel, Southern Division
Nancy Rodriguez, USEPA Region IV
David Grabka, FDEP
LT G. Whipple, NTC-Public Works Officer
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Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29418

FINAL DECISION AND RESPONSE TO COMMENTS

Study Area 36, Public Works, Buildings 2121 and 2122
Naval Training Center, Orlando
Orlando, Florida

Introduction

Study Area 36 is located south of Langley Street and west of Grace Hopper Avenue on the Main Base, Naval Training Center (NTC), Orlando (Figure 1). The SA includes Building 2121, Building 2122, and the western half of the Public Works Yard. Building 2121 is a lumber storage facility. The areas of the yard south and east of Building 2121 are used to store a variety of materials. The area south of the building has a lime rock surface and is used to store bulky items including pipes, fire hydrants and bricks. The area to the east is paved with asphalt and used to store a variety of hazardous and non-hazardous materials prior to disposal. Materials observed in this area include waste oil drums, transformers and batteries.

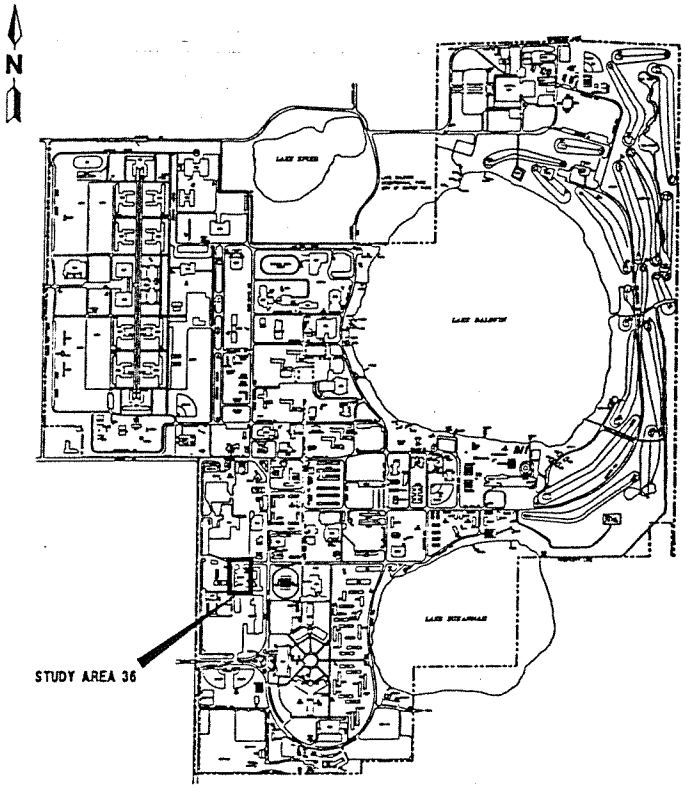
Building 2122, built in 1952, is the Paint Shop. Paint and paint thinner were stored inside the building. A flammable materials storage cabinet was located at the north end of the building. The paved area north and east of the building was also used for storage, including stockpiles of sand and gravel used by the Public Works Department. A 55-gallon drum containing used motor oil was also observed north of the building during the environmental baseline survey in 1994. Surface water runoff from the paved areas of the site is collected by drainage swales and storm drains along the western margin of the site. An unnamed road that connects a large parking lot south of the SA to Langley Road is the western boundary.

Investigation Summary. The objectives for the site screening activities at SA 36 were to evaluate the nature and extent of any releases to the environment that may have occurred at the site. The investigation included

- Site walkover
- Review of historical documents
- Review of aerial photographs
- Installation of passive soil gas collectors to look for potential volatile organic compound (VOC) "hot spots"
- Surface and subsurface soil, and groundwater collection and analyses
- Delineation of contaminants in groundwater with direct push technology (DPT)

Figure 2 shows the locations of all soil and groundwater samples. Also shown on Figure 2 are sampling locations of the passive soil gas collectors. The analytical results of the soil samples were evaluated by comparing the concentration of the various compounds detected to screening criteria, including basewide soil background screening levels, Florida Department of Environmental Protection's (FDEP's) Soil Cleanup Target Levels (SCTLs), and U.S. Environmental Protection Agency (USEPA) Region III Risk-Based Concentrations (RBCs).

Figure 1. Location of Study Area 36



For purposes of discussion, the site has been subdivided into three areas: (1) the north storage area; (2) the south storage area; and (3) the drainage swale.

During the passive soil gas survey, chlorinated solvents were detected at one sample location in the north storage area.

In surface soil, several inorganic and organic contaminants were detected at concentrations exceeding FDEP residential SCTLs. These include total recoverable petroleum hydrocarbons (TRPH); the inorganics antimony, arsenic, mercury, and barium; and the polynuclear aromatic hydrocarbons benzo(a)pyrene and dibenz(a,h)anthracene. In subsurface soil, arsenic was detected in two samples at concentrations exceeding Florida residential SCTLs, but these concentrations did not exceed nonresidential levels.

In groundwater, the inorganics antimony and aluminum, and the chlorinated solvents tetrachloroethene (PCE) and trichloroethene (TCE) were detected at concentrations exceeding State of Florida and Federal drinking water standards. The chlorinated solvent groundwater plume was delineated with a DPT investigation, and those screening data were confirmed with analytical data from permanent monitoring wells. The monitoring wells were screened at shallow, intermediate and deep depths in the shallow aquifer. The monitoring well data indicate a complex groundwater flow pattern, with shallow flow to the northwest and deeper flow to the east, probably controlled largely by a cemented sand layer at a depth of approximately 20 feet.

Selected Remedy for Soil

To identify the selected remedy for SA 36, applicable regulations and guidance documents were considered. Based on this review, a remedial approach has been selected for SA 36. The approach consists of an interim remedial action (IRA) that will include removal of some soil containing levels of certain metals (inorganics) and PAHs that exceed Florida residential levels. The IRA will also rely on some mixing of remaining surface soil to achieve residential levels. Details of this action are discussed below.

The chlorinated solvent plume in groundwater is still being evaluated. Remedial solutions for groundwater will be formulated and presented to the public when studies are completed.

Proposed Interim Remedial Action. The Navy, U.S. Environmental Protection Agency, and Florida Department of Environmental Protection have determined that an interim remedial action is appropriate at SA 36 to protect human health and the environment. Several areas have been identified where inorganics or TRPH concentrations exceed residential limits (Figure 2). These will require remediation of surface soil only. The recommended areas to be excavated are shown on Figure 3. A soil removal is recommended at the following "hot spots":

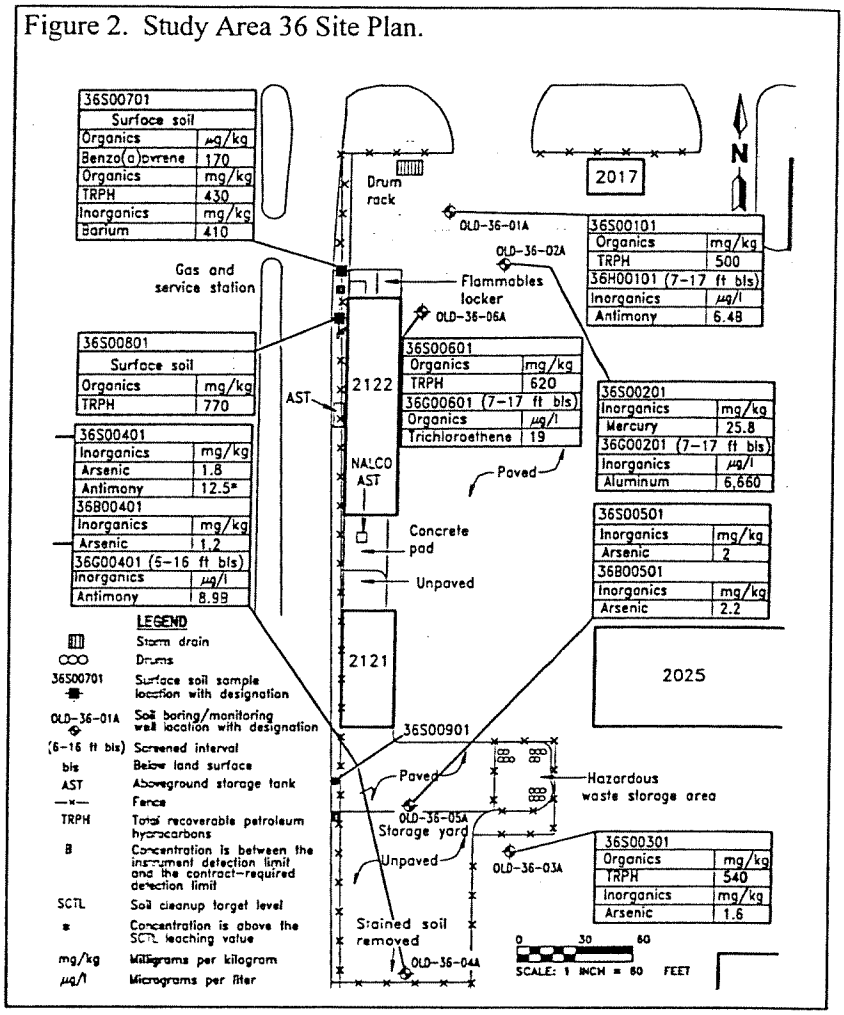
- Mercury exceedance in surface soil in the north storage area
- Antimony exceedance of State leaching value in surface soil in the south storage area
- Barium and benzo(a)pyrene exceedances in surface soil in the drainage swales

Future demolition activities and site preparation are expected to provide sufficient mixing in the shallow soil that the presence of other contaminants (TRPH and arsenic) currently at low concentrations are expected to diminish below action levels. However, the Navy is recommending additional surface soil sampling following demolition and site preparation activities to confirm that those contaminant concentrations meet residential land use criteria. Future recommended sampling will include analysis for:

- TRPH exceedances in surface soil site wide
- Arsenic exceedances in surface soil in the south storage area

The arsenic concentrations in subsurface soil only marginally exceed residential SCTLs, and because they occur at depths of 5 to 6 feet below land surface, no further action is necessary. The chlorinated solvent plume beneath the north storage area will require further evaluation, followed by selection and implementation of a suitable remedial alternative. Remedial alternatives being considered for three other sites at the NTC may be appropriate at SA 36, as the contaminants are similar. However, at SA 36 the contaminants occur at significantly lower concentrations than at some other locations.

Figure 2. Study Area 36 Site Plan.



The selected approach for remediation of surface soil at SA 36 is consistent with remedial actions at several other sites that had minor exceedances of Florida guidelines for one or more compounds. Removal of soil from this site will allow unrestricted use for future property owners. The volume of soil to be excavated is estimated to be approximately ? cubic yards. However, this volume may change if confirmation sampling indicates more or less contaminated soil than has been estimated.

Community acceptance of the selected remedy was evaluated through presentations to the facility's Restoration Advisory Board (RAB). RAB meetings are open to the public and their bimonthly meetings are publicized in the *Orlando Sentinel*. The public was given an opportunity to comment on the remedy selected for SA 36 via distribution of a fact sheet in June 1999 to the NTC, Orlando Community Mailing List, comprised of more than 300 interested citizens and community leaders. The public was also invited to attend the RAB meeting on July 21, 1999. The fact sheet summarized the selected remedy and invited written comment from the public until August 20, 1999. A public availability session would have been held following the August 20 cutoff date if there had been sufficient community interest. However, there were no comments from the public on the selected remedy.

Declaration

Based on the administrative record compiled for this corrective action, the Navy has determined that the remedy selected for SA 36 is appropriate and protective of human health and the environment and complies with Federal and State regulatory requirements. The FDEP and USEPA concur with the remedy selected.

SIGNATURE.

Wayne Hansel, P.E.
Base Realignment and Closure Environmental Coordinator

Date

Figure 3. Study Area 36 Recommended Soil Excavation Areas (to be completed following OPT review of site screening report).